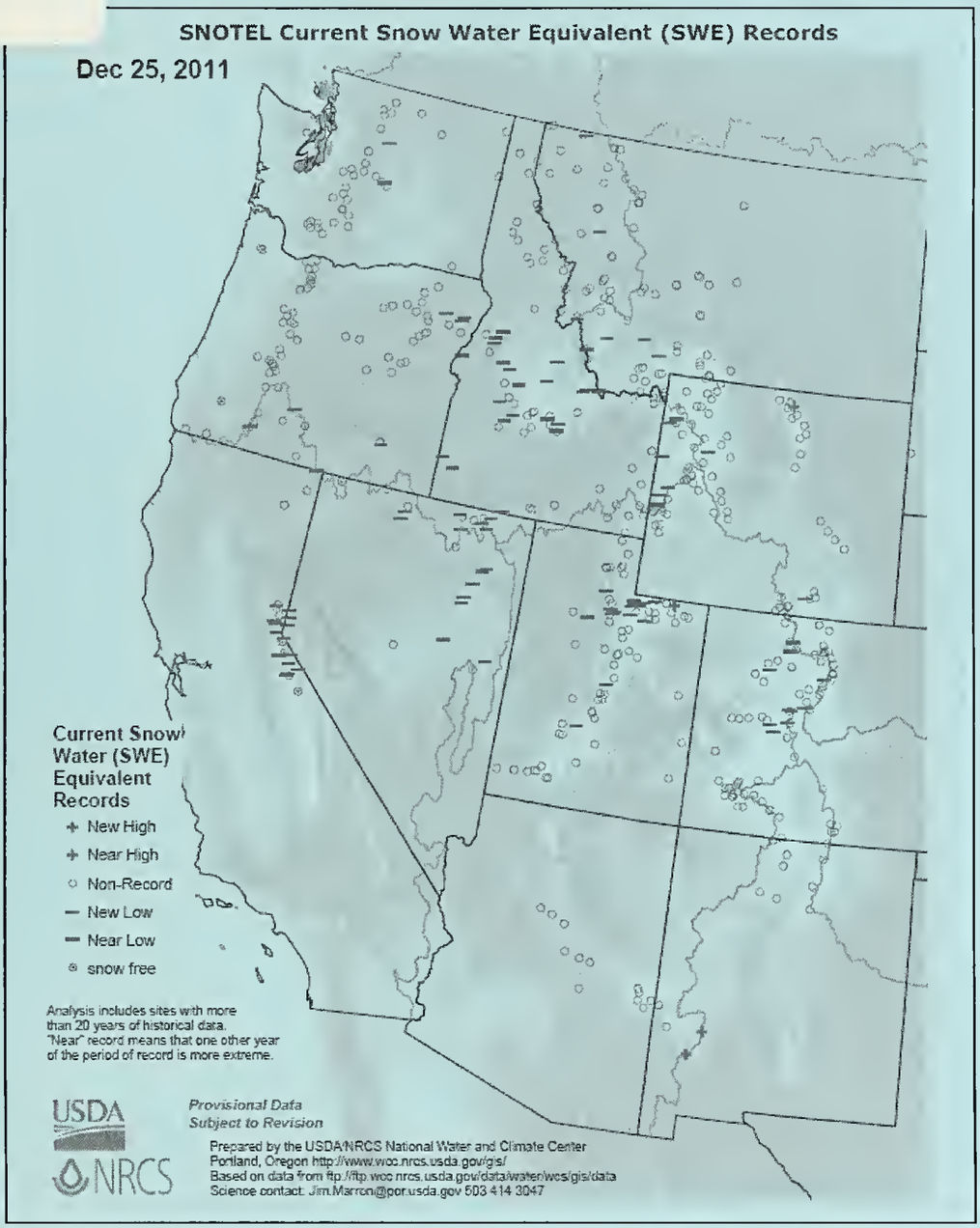
United States Department of Agriculture
Natural Resources Conservation Service

Idaho Water Supply Outlook Report January 1, 2012



The minus signs on this map represent the record or near record low Christmas snowpacks at many SNOTEL sites across Idaho and the West. Such dry conditions were surprising since cold ocean temperatures, that signal a La Nina, have been measured in the Pacific Ocean ever since last winter. La Nina conditions are often touted as producing cold and stormy winters in the Pacific Northwest. Last winter was a textbook example. While this year's La Nina is not as strong as last year, climate models are still predicting above average conditions in the coming months. The weather pattern shifted in late December bringing long anticipated snow to Idaho. Hopefully the snow will continue as a significant amount of catch-up is needed to get Idaho's snowpack back to above average amounts.

Basin Outlook Reports
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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when the snow melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to produce runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertainty is in the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

IDAHO WATER SUPPLY OUTLOOK REPORT

JANUARY 1, 2012

SUMMARY

Idaho is waiting for the one-two punch to improve the snowpack and water supply outlook. The stage seemed set with a rerun of La Nina. The first 45 days of the new water year, which began on October 1, brought ample fall rains followed by early November snow. After mid-November, the only punch felt was cold temperatures with the exception of northern Idaho. Then, in late December moisture laden storms finally arrived for the next punch, but rain fell at elevations over 7,000 feet in central Idaho. Snowpacks are below average across the state with the Owyhee basin pushing near record low levels. The good news is that the soil moisture deficit has been nearly erased from the October rains and that reservoirs are storing near average to above average water levels across the state. Streamflow forecasts mirror the snowpacks and call for 30-75% of average April through July volumes for most of the state and near 85% of average in the Panhandle region. With more than half the winter still to come, conditions can improve by delivering the one-two punch: cold temperatures combined with Pacific moisture. Long-term climate forecasts still cite La Nina conditions in the Pacific Ocean, and predict above average precipitation for the coming months.

SNOWPACK

An extended dry spell since Thanksgiving left 22 SNOTEL sites with record or near record low snow amounts by Christmas Day. The last week of December brought a long, anticipated series of storms into the state. However, much of the moisture began falling as rain as high up as 7,000 feet and in places such as Jackson, Wyoming. The powerful storm finished with high winds followed by a sharp drop in temperatures and snow. The storm even brought some thunder and lightning to the Treasure Valley on December 30. As a result of the recent storm cycle, the number of record low snowpacks at SNOTEL sites decreased. On January 1, the record low snowpacks are located in the Owyhee and Bruneau basins at only near 26-35% of average. Elsewhere across southern Idaho the snowpacks range from 35-60% of average. Central Idaho snowpacks are 55-65% of average while the highest snowpacks remain in northern Idaho at 65-90% of average.

PRECIPITATION

The water year started in October with the state receiving 1 to 2.5 times the normal monthly precipitation amounts. This helped to erase the annual summer soil moisture deficit across most of the state. November brought an early snow storm before Thanksgiving, but then gave way to a stagnant weather pattern of blue skies during the day and clear skies at night for nearly 30 days. November precipitation ranged from half of average in southern Idaho to just over average in northern Idaho. December's precipitation would have been disappointing if not for the stormy last week of the month which raised monthly precipitation amounts to 40-60% across the state, except in southern Idaho which received less than one-third of average amounts. On the bright side, water year-to-date precipitation amounts are near average in the Little Wood, Big Lost and Little Lost basins and are 60-90% elsewhere in the state.

RESERVOIRS

Excellent carryover storage from last year will provide a relief for water users if snowpacks remain below average. Concern of too much water in storage faded with the extended period of blue skies. Current storage amounts range from 50-85% of capacity and are near average to well above average state-wide. Fortunately, minimal spring runoff is needed to provide adequate irrigation supplies in the Salmon Falls, Oakley and Bear River basins because of the carryover storage.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive and in some cases, dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in this report.

STREAMFLOW

Throughout Idaho, streamflow in most rivers was above average from last spring through this November, when the thermometer began to drop and the skies cleared. The sustained high streamflows highlight the impressive impact that last year's snowpack and precipitation had on baseflows. The late December precipitation thawed some streams and caused some short-lived stream peaks that have already subsided. Summer streamflow forecasts mirror the current snowpack conditions with the lowest flows forecast in the Owyhee and Bruneau basins at 30-50% of average and highest in northern Idaho at 75-89% of average. To honor a request, the NRCS will start forecasting the natural flow this year for Camas Creek at Camas near Mud Lake to assist water managers at Camas National Wildlife Refuge.

Note: Forecasts published in this report are NRCS forecasts. NRCS uses timely SNOTEL data to provide streamflow forecasts. Jointly coordinated published forecasts by the USDA NRCS and the NOAA NWS are available from the joint west-wide Water Supply Outlook for the Western US at http://www.wcc.nrcs.usda.gov/wsf/westwide.html. Water users may wish to use a lesser exceedance forecast to reduce the risk of coming up water short or greater volume to mitigate high flow potential.

RECREATION

If ice skating on glassy, snow-free lakes is your winter passion December 2011 may go down as your all-time favorite. Otherwise winter recreation has been pretty limited through Christmas for most of Idaho. Two-thirds of our SNOTEL sites had less than two feet of snow on the ground through December 27th. Only high elevation sites in Northern Idaho and western Wyoming saw more than 3 feet of snow. One note of caution, avalanche centers across the region are warning of a weak, faceted snowpack underlying the new snow. Check local advisories at www.avalanche.org and use caution before proceeding in the mountains.

Implementation of 1981–2010 Period Climate Normals Delayed until October 1, 2012

The NRCS Snow Survey and Water Supply Forecasting Program follows the World Meteorological Organization (WMO) conventional standard for climate normals when comparing current data to historic trends. The WMO has established a 30-year reference period "as it is long enough to filter out any interannual variation or anomalies, but also short enough to be able to show longer climatic trends". (http://www.wmo.int/pages/themes/climate/climate_data_and_products.php). Climate normals are updated every ten years, and NRCS as well as other agencies like the National Weather Service are currently in the process of changing from the 1971–2000 period to the new 1981–2010 period. The most recent 30 year period is said to represent the current climatological conditions; that is why a 30 period is used instead of a longer period.

The full implementation of the "new" normals for all NRCS applications is planned for the beginning of the 2013 water year on October 1, 2012. In the meantime, all reports and products including streamflow forecasts for the current water year will continue using the 1971–2000 normals. Normal values of both medians and averages will be produced for all parameters and available to the public. Please contact the Idaho Snow Survey Office or watch our home Internet page for more information.

1981-2010 Climate Normals will use a Combination of Means and Median

The values presented as the "NRCS official" 1981-2010 30-year normals, whether daily, monthly, annual or seasonal (April – July period for example), will be the arithmetic mean (i.e., average) of the 30 individual yearly data for the following parameters: streamflow volume acre-feet, reservoir storage acre-feet, SNOTEL and NWS precipitation, and snow depth (manual snow courses only). SNOTEL sites do not have enough years of automated snow depth to produce reliable normals. However, the normal values presented for the snow water equivalent (SWE) parameter will be the statistical median of the 30 individual yearly data for both manual snow courses and daily SNOTEL data. This is a departure from previous years when all parameters used the average (mean) values.

Climate data specialists are nearly unanimous in the opinion that the SWE median better represents a normal condition for a parameter that accumulates and dissipates in a seasonal pattern with great variation. As an example, think of a site that hardly ever has snow water on the ground on June 1. The perception is that the "normal" condition is more or less zero snow for June 1. Now, if you add an extreme year, like June 2011, the arithmetic mean value might end up being a couple inches. In this case the mean does not represent the normal or most expected condition; however, the median which would probably be zero, makes a better normal. In 2001 when the averages were updated, the average Julian start and melt out dates were calculated and used to define the start and end points for the 1971-2000 SWE averages in Idaho. This new method of using medians now provides consistency West-wide.

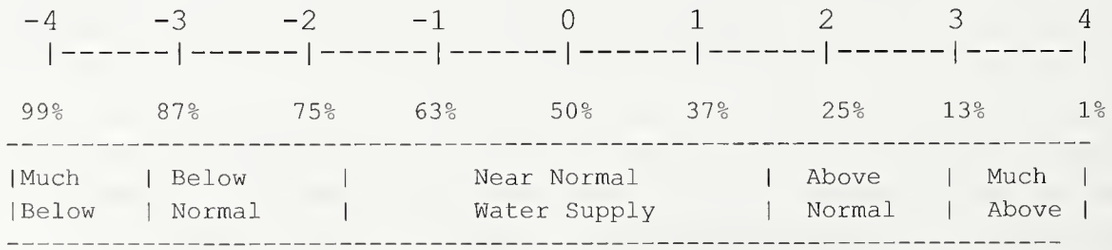
IDAHO SURFACE WATER SUPPLY INDEX (SWSI) January 1, 2012

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.0 (abundant supply) to -4.0 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences. The SWSI analysis period is from 1971 to present.

SWSI values provide a more comprehensive outlook of water availability by combining streamflow forecasts and reservoir storage where appropriate. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been determined for some basins to indicate the potential for agricultural irrigation water shortages.

BASIN or REGION	***SWSI Value***	***Most Recent Year With Similar SWSI Value***	***Agricultural Water Supply Shortage May Occur When SWSI is Less Than***
Northern Panhandle	-0.4	1995	NA
Spokane	-0.7	2010	NA
Clearwater	-1.7	2010	NA
Salmon	-1.4	2000	NA
Weiser	-1.7	2004	NA
Payette	-1.4	2004	NA
Boise	0.7	2007	-1.3 to -1.6
Big Wood	0.6	2011	0.5 to 0.7
Little Wood	0.7	2005	-1.3 to -1.6
Big Lost	-0.4	2010	0.3 to 0.5
Little Lost	-1.2	2008	1.0 to 1.3
Teton	-0.9	2005	NA
Henrys Fork	-0.8	2010	-3.4 to -3.6
Snake (Heise)	0.9	2008	-1.3 to -1.6
Oakley	1.4	2000	0.3 to 0.5
Salmon Falls	0.1	2010	-0.4 to -0.8
Bruneau	-2.4	2003	NA
Owyhee	0.4	2005	-3.0 to -3.5
Bear River	2.0	2011	-2.3 to -2.6

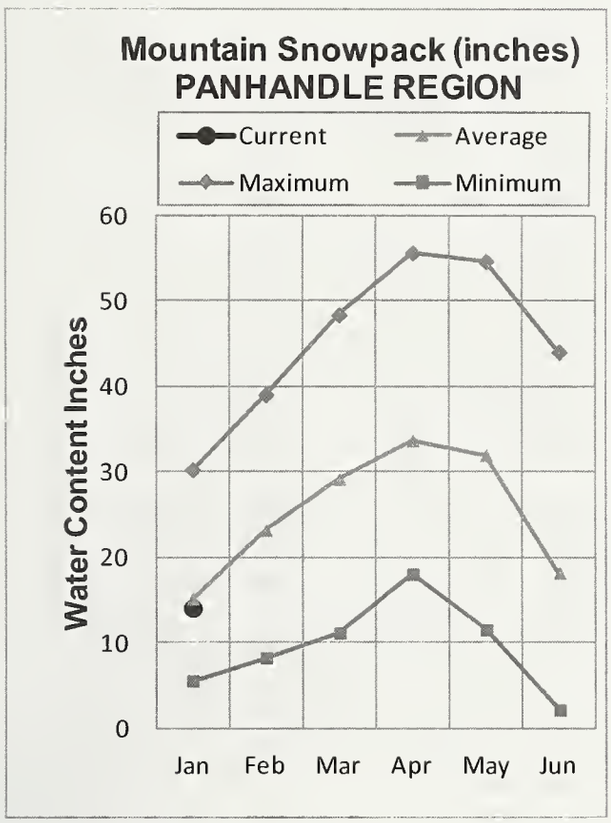
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION

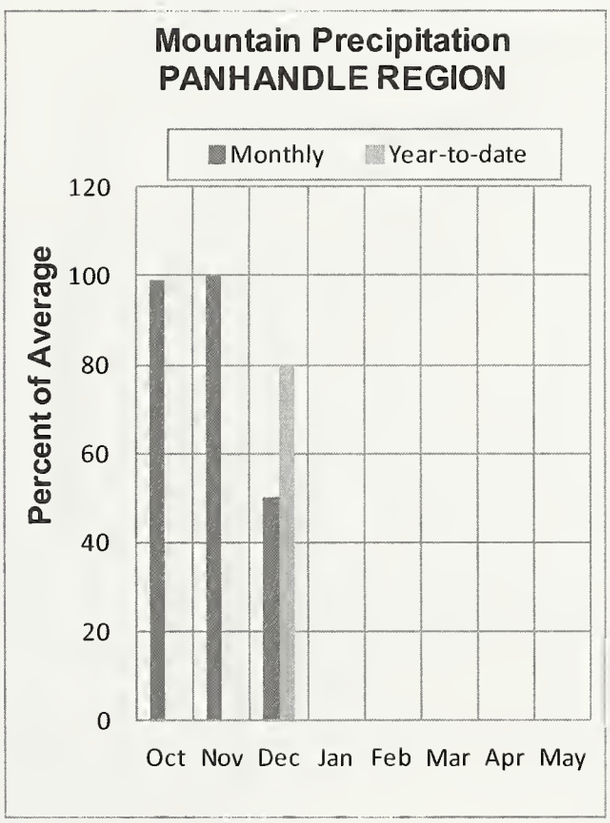


NA = Not Applicable, Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply," represents three SWSI units and would be expected to occur about one-third (36%) of the time.

PANHANDLE REGION

JANUARY 1, 2012





WATER SUPPLY OUTLOOK

The Idaho panhandle region's mountains have an 84% of average snowpack on January 1, while the rest of the state has snowpack levels lower than this. The best snow can be found in the Moyie and Priest River drainages at near 95% of average and the lowest in the St. Joe at 66% of average. Based on the current snowpack and the La Nina conditions expected, these mountains should be in good shape through the winter making water users happy in the spring. Reservoirs are about 40% of capacity and the rivers are expected to run about 80-90% of average from April through July. While any range of weather conditions are possible throughout the rest of the winter, the Panhandle region is leaning towards having an adequate summer water supply season even though it has seemed dry so far.

PANHANDLE REGION
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Kootenai R at Leonia (1,2)	APR-JUL	4340	5400	5880	84	6360	7410	7040
	APR-SEP	5170	6240	6730	83	7220	8290	8120
Moyie R at Eastport	APR-JUL	215	295	350	86	405	485	405
	APR-SEP	230	310	365	87	420	500	420
Smith Ck nr Porthill	APR-JUL	67	92	109	89	126	151	123
	APR-SEP	66	94	113	88	132	160	129
Boundary Ck nr Porthill	APR-JUL	77	96	109	89	122	141	123
	APR-SEP	80	100	113	88	126	146	129
Clark Fork at Whitehorse Rpds (1,2)	APR-JUL	6410	8670	9700	86	10700	13000	11300
	APR-SEP	7270	9650	10700	86	11800	14200	12500
Pend Oreille Lake Inflow (2)	APR-JUL	7790	9480	10600	84	11800	13500	12700
	APR-SEP	8670	10400	11600	84	12800	14600	13900
Priest R nr Priest River (1,2)	APR-JUL	415	555	650	80	745	885	815
	APR-SEP	445	595	695	80	795	945	870
NF Coeur d'Alene R at Enaville	APR-JUL	305	480	600	81	720	895	740
	APR-SEP	330	510	630	81	750	930	780
St. Joe R at Calder	APR-JUL	560	760	900	79	1040	1240	1140
	APR-SEP	600	810	950	79	1090	1300	1200
Spokane R nr Post Falls (2)	APR-JUL	1210	1750	2120	83	2480	3020	2550
	APR-SEP	1280	1830	2200	83	2570	3120	2650
Spokane R at Long Lake (2)	APR-JUL	1370	1980	2390	84	2800	3410	2850
	APR-SEP	1530	2160	2590	84	3020	3650	3070

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
PEND OREILLE	1561.3	641.0	880.5	673.4
COEUR D'ALENE	238.5	50.9	134.2	110.1
PRIEST LAKE	119.3	53.2	53.6	55.7

PANHANDLE REGION
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Kootenai ab Bonners Ferry	8	90	84
Moyie River	1	125	111
Priest River	4	95	96
Pend Oreille River	57	76	79
Rathdrum Creek	3	75	73
Coeur d'Alene River	6	73	72
St. Joe River	4	81	66
Spokane River	13	76	70
Palouse River	1	52	53

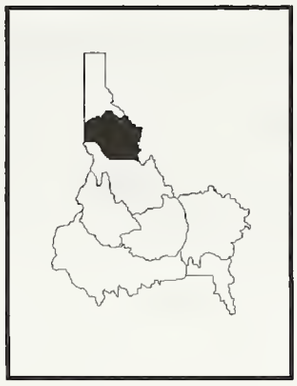
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

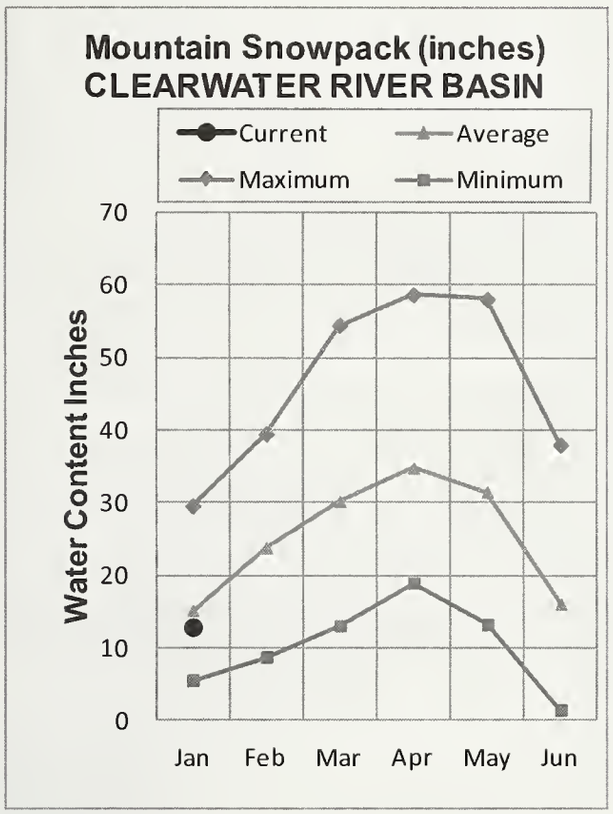
The average is computed for the 1971-2000 base period.

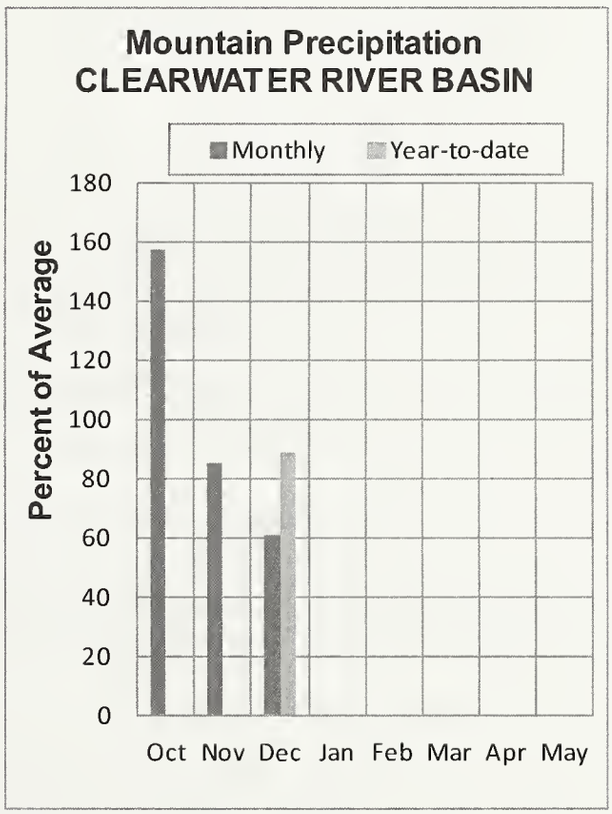
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

CLEARWATER RIVER BASIN

JANUARY 1, 2012







WATER SUPPLY OUTLOOK

La Nina hasn't produced the desired snowpack in the Clearwater basin yet this winter. As of January 1, the snowpack is 77% of normal and lagging behind the neighboring basins to the north. A powerful storm moved through before New Year's Day but more rain fell than snow below 6000 feet of elevation. Conversely, the higher elevation sites received almost 2 new feet of snow. The rain and warmer temperatures broke up some river ice and caused some mid-winter streamflow peaks; not near as intense as last January's runoff event. For instance, the Clearwater at Orofino was frozen on December 29th, and then jumped to a daily mean flow of 6,630 cfs on New Year's Eve. Last January, the River was not frozen but jumped from around 2,500 cfs to 28,900 cfs over a few days! Hopefully, La Nina will carry its weight and bring the expected snow this winter. If it lags, Dworshak Reservoir has 91% of average storage and is 65% of capacity. The streamflow forecasts call for 75% of average volumes for Dworshak Reservoir inflow and about 85% for the Clearwater, Lochsa and Selway Rivers for the April through July period. These forecasts will increase over the next few months as the finger crossing brings the snow.

CLEARWATER RIVER BASIN
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Selway R nr Lowell	APR-JUL	1280	1580	1790	87	2000	2300	2060
	APR-SEP	1370	1680	1890	87	2100	2410	2170
Lochsa R nr Lowell	APR-JUL	915	1140	1300	85	1460	1680	1530
	APR-SEP	985	1210	1370	85	1530	1760	1610
Dworshak Res Inflow	APR-JUL	955	1670	1990	75	2310	3030	2640
	APR-SEP	1050	1780	2120	76	2450	3180	2800
Clearwater R at Orofino (1)	APR-JUL	1810	3330	4020	87	4710	6230	4650
	APR-SEP	2050	3570	4260	87	4950	6470	4900
Clearwater R at Spalding (1,2)	APR-JUL	2410	4980	6150	83	7320	9890	7430
	APR-SEP	2760	5330	6490	83	7660	10200	7850

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	2256.3	2333.8	2481.4

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	9	78	72
Lochsa River	2	95	90
Selway River	4	99	91
Clearwater Basin Total	16	79	75

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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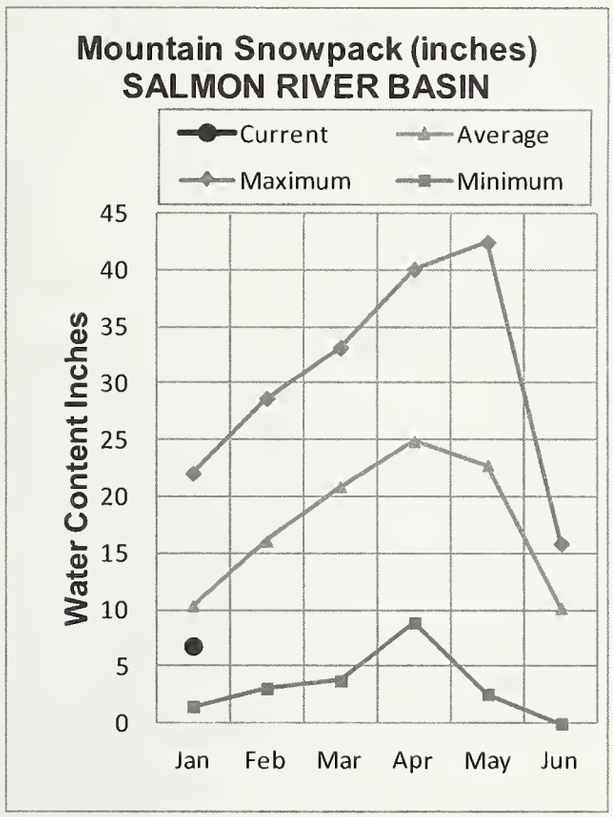
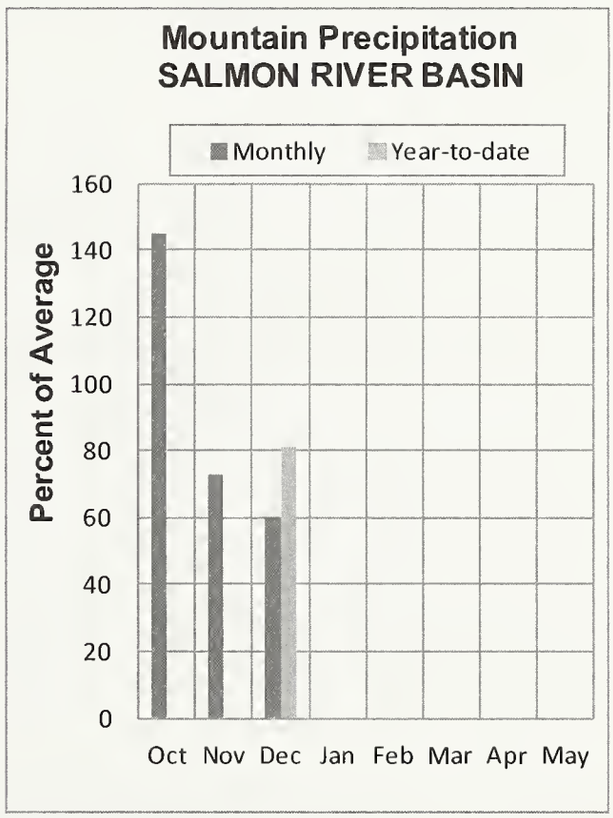
SALMON RIVER BASIN

JANUARY 1, 2012





WATER SUPPLY OUTLOOK

Every year is unique, but the hope is that the slow start to winter this year will be offset by the usual stormy weather that occurs during a La Nina year. Recall from a recent La Nina year such as 2009, where winter was delayed early in the season but the snowpack caught up to average later in the season before snowmelt began. Last year, the snowpack started off on a better note, lingered late into spring and ended up being the 2nd highest snowpack on SNOTEL records for June 1. The long dry spell this past December results in a 72% of average January 1st snowpack. The water year-to-date precipitation is slightly better on January 1 at 81% of average due to rainfall before the snow began accumulating. Any combination of big storms over the next few months or late lingering snowpacks similar to these historical La Nina years will leave behind a favorable water supply picture this spring. It is too early in the season to say for sure and there have been too many recent weather anomalies to be confident in the summer water supply outlook on this January 1. However, based on the current conditions, the streamflow forecasts call for about 65-75% of average volumes for the Salmon River and its tributaries; enough water for fun on the rivers this spring.

SALMON RIVER BASIN
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Salmon R at Salmon (1)	APR-JUL	256	524	645	75	766	1034	855
	APR-SEP	308	615	755	76	895	1202	1000
Lemhi R nr Lemhi	APR-JUL	25	42	55	64	70	96	86
	APR-SEP	33	52	68	65	86	115	105
MF Salmon R at MF Lodge	APR-JUL	233	431	565	72	699	897	785
	APR-SEP	273	488	635	73	782	997	875
SF Salmon R nr Krassel RS	APR-JUL	103	161	200	69	239	297	290
	APR-SEP	108	169	210	68	251	312	310
Johnson Ck at Yellow Pine	APR-JUL	77	116	142	69	168	207	205
	APR-SEP	80	120	148	69	176	216	215
Salmon R at White Bird (1)	APR-JUL	1876	3474	4200	72	4926	6524	5850
	APR-SEP	2234	3971	4760	74	5549	7286	6480

SALMON RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	8	70	76
Lemhi River	6	63	69
Middle Fork Salmon River	3	63	69
South Fork Salmon River	3	59	68
Little Salmon River	4	63	67
Salmon Basin Total	23	66	73

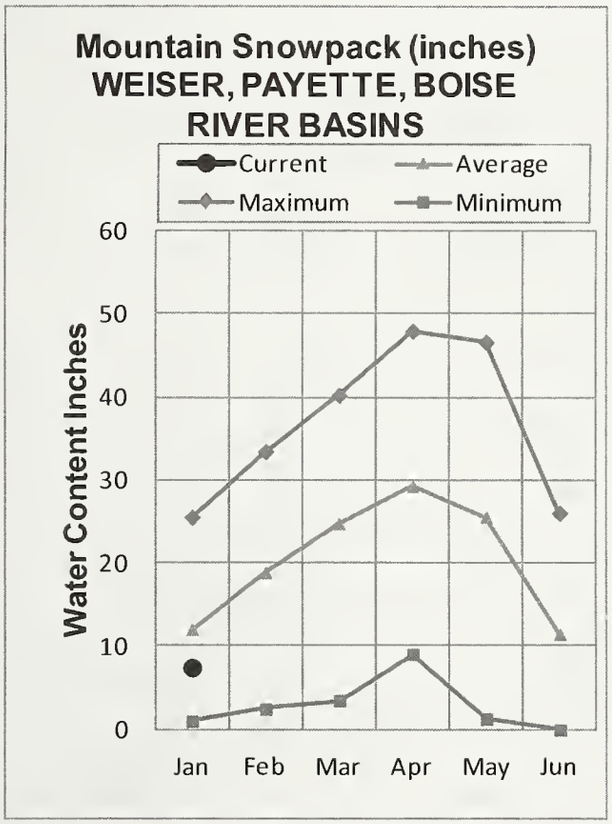
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

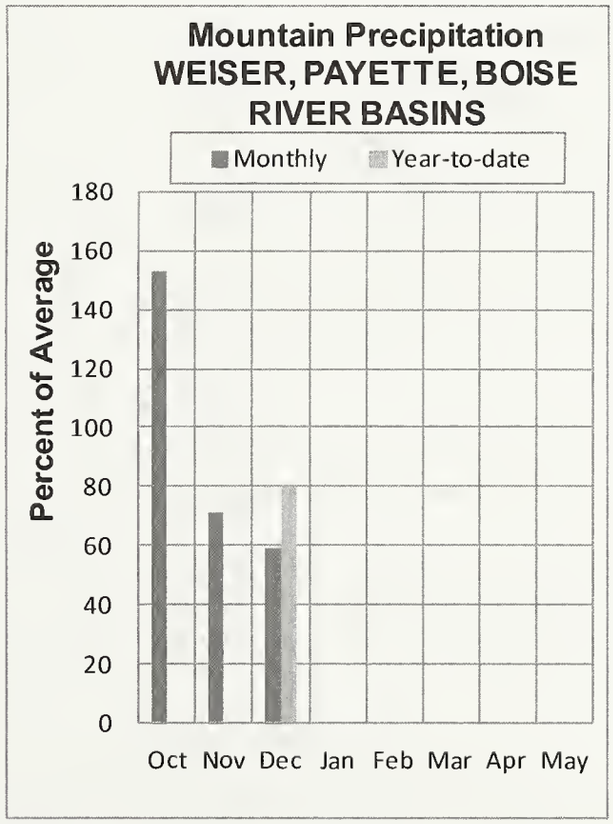
The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS

JANUARY 1, 2012





WATER SUPPLY OUTLOOK

The water year got off to a good start in October, but dry conditions in November and December have the West Central Mountains playing catch-up. Water year-to-date precipitation is 80% of normal. Monthly Precipitation was 153% of normal in October, 71% of normal in November and only 59% of normal for December. Through December 27th, 17 of 22 SNOTEL sites in the region had seen 0.2 inches or less precipitation for the month. Usual December precipitation at these sites is about 6 inches. These bone dry skies from Thanksgiving to Christmas produced record low Christmastime snow amounts when compared to 30 years of daily SNOTEL measurement at Mores Creek Summit and Deadwood Summit. A number of other sites ranked second lowest with only 1989 having less snow. Fortunately the large storm starting on December 28 increased snowpack amounts to 69% of average by January 1. Prior to that storm, the snowpack was only about 45% of normal. Although snowpacks are low, good reservoir storage provides some security for water users at this point. Reservoir storage amounts are above average in both the Boise and Payette basins. Summer streamflow forecasts call for 63-80% of average for the April-July period. Hopefully the recent storm cycle is an indication of what to expect in the coming months while there is still time for snowpacks to reach normal levels by April.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Weiser R nr Weiser (1)	FEB-JUL	113	320	445	69	595	995	650
	APR-JUL	66	188	265	68	355	600	390
	APR-SEP	76	205	285	68	380	630	420
SF Payette R at Lowman	APR-JUL	210	275	330	75	385	480	440
	APR-SEP	245	320	380	77	445	545	495
Deadwood Resv Inflow (1,2)	APR-JUL	38	78	97	72	116	156	134
	APR-SEP	40	84	104	73	124	168	142
Lake Fork Payette R nr McCall	APR-JUL	43	54	63	74	72	87	85
	APR-SEP	44	56	65	73	75	90	89
NF Payette R at Cascade (1,2)	APR-JUL	117	290	370	71	450	625	520
	APR-SEP	112	295	380	70	465	650	540
NF Payette R nr Banks (2)	APR-JUL	245	380	470	70	560	695	675
	APR-SEP	240	385	480	69	575	720	700
Payette R nr Horseshoe Bend (1,2)	APR-JUL	490	955	1170	71	1380	1850	1640
	APR-SEP	555	1030	1250	71	1470	1950	1760
Boise R nr Twin Springs (1)	APR-JUL	220	415	505	80	595	790	635
	APR-SEP	250	455	550	80	645	850	690
SF Boise R at Anderson Ranch Dam (1,	APR-JUL	101	305	395	73	485	690	540
	APR-SEP	117	330	425	73	520	735	580
Mores Ck nr Arrowrock Dam	APR-JUL	34	61	83	63	109	153	131
	APR-SEP	36	63	86	63	112	158	137
Boise R nr Boise (1,2)	APR-JUN	445	785	935	74	1090	1420	1260
	APR-JUL	445	860	1050	75	1240	1650	1410
	APR-SEP	530	950	1140	75	1330	1750	1530

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	1.7	2.2	3.3
CASCADE	693.2	489.7	438.9	456.4
DEADWOOD	161.9	94.1	98.9	82.5
ANDERSON RANCH	450.2	373.8	320.2	296.8
ARROWROCK	272.2	192.9	168.5	173.1
LUCKY PEAK	293.2	87.1	79.2	95.5
LAKE LOWELL (DEER FLAT)	165.2	120.3	122.6	98.4

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	1	39	50
Weiser River	3	38	66
North Fork Payette	8	54	62
South Fork Payette	5	58	64
Payette Basin Total	15	50	59
Middle & North Fork Boise	5	56	66
South Fork Boise River	9	53	66
Mores Creek	6	29	40
Boise Basin Total	17	45	57
Canyon Creek	2	19	34

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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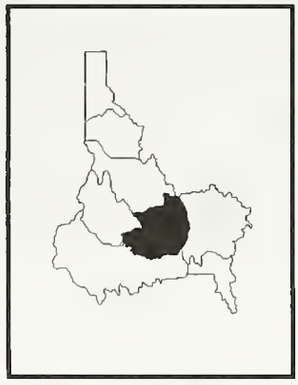
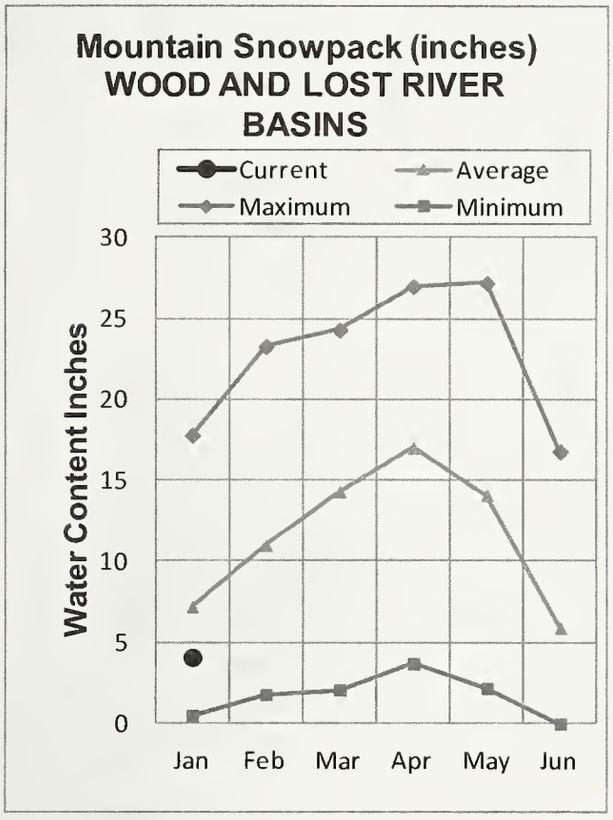
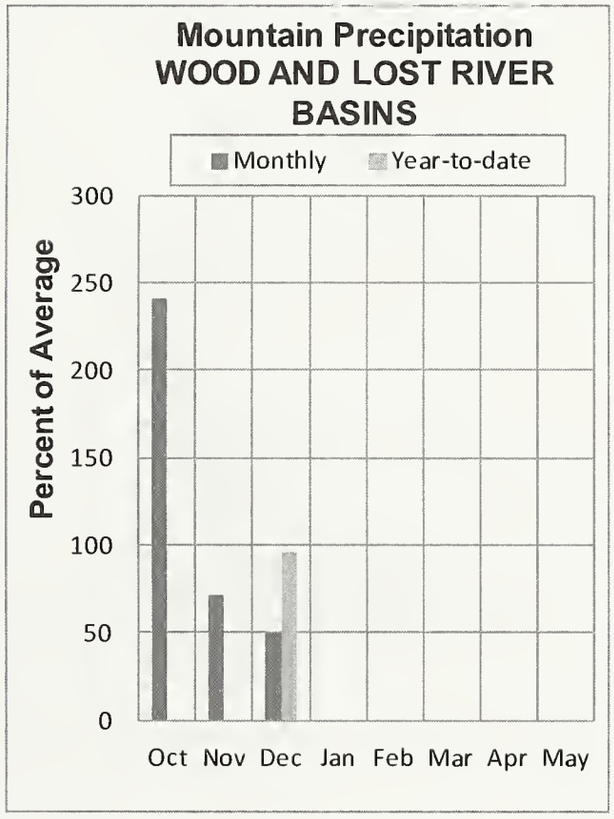
WOOD and LOST RIVER BASINS

JANUARY 1, 2012







WATER SUPPLY OUTLOOK

The Wood and Lost basins got off to the best start in the state this water year, but since October all bragging rights have been revoked. For a while it looked like La Nina was picking up right where it left off last spring. October brought 241% of the normal monthly precipitation to central Idaho, breaking a number of SNOTEL precipitation records for the month. After 72% of normal November precipitation and only 50% in December, the water year-to-date precipitation on January 1 is 96%. Snowpacks across these four basins currently range from 53-70% of normal with the highest amounts in the Big Wood basin. The fall rains helped to remove soil moisture deficits from last summer. Magic Reservoir is 142% of average, best since 1999; Little Wood is 167% of average while Mackay is 139% of average, all are about two-thirds full. Streamflow forecasts call for 50-85% of average summer streamflow volumes. Although streamflow forecasts are low, reservoir storage combined with a few good storms should provide adequate irrigation supplies.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Big Wood R at Hailey (1)	APR-JUL	9.0	128	182	71	235	355	255
	APR-SEP	13.0	145	205	71	265	395	290
Big Wood R ab Magic Res	APR-JUL	33	69	104	55	149	240	190
	APR-SEP	33	73	113	55	166	270	205
Camas Ck nr Blaine	APR-JUL	6.0	27	50	50	80	137	100
	APR-SEP	6.0	27	50	50	80	137	101
Big Wood R bl Magic Dam (2)	APR-JUL	52	77	154	53	230	345	290
	APR-SEP	55	84	163	53	240	360	305
Little Wood R ab High Five Ck	MAR-JUL	21	42	61	72	83	121	85
	MAR-SEP	23	46	66	72	89	130	92
Little Wood R near Carey (2)	MAR-JUL	11.0	44	66	69	88	121	96
	MAR-SEP	13.0	48	71	68	94	129	104
Big Lost R at Howell Ranch	APR-JUL	61	96	125	72	157	210	173
	APR-SEP	68	108	140	71	176	240	197
Big Lost R bl Mackay Res	APR-JUL	15.0	60	90	64	120	165	141
	APR-SEP	21	74	111	65	148	200	172
Little Lost R nr Howe	APR-JUL	12.1	17.6	22	71	27	35	31
	APR-SEP	15.4	22	28	72	34	44	39
Camas Ck at Camas	APR-JUL	1.5	5.6	15.5	52	25	40	30

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	113.2	80.3	79.7
LITTLE WOOD	30.0	23.5	16.3	14.1
MACKAY	44.4	33.0	32.0	23.7

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Hailey	8	66	73
Camas Creek	5	30	44
Big Wood Basin Total	13	54	65
Fish Creek	0	0	0
Little Wood River	4	43	55
Big Lost River	5	41	53
Little Lost River	3	46	53
Birch-Medicine Lodge Cree	2	58	70
Camas-Beaver Creeks	4	40	49

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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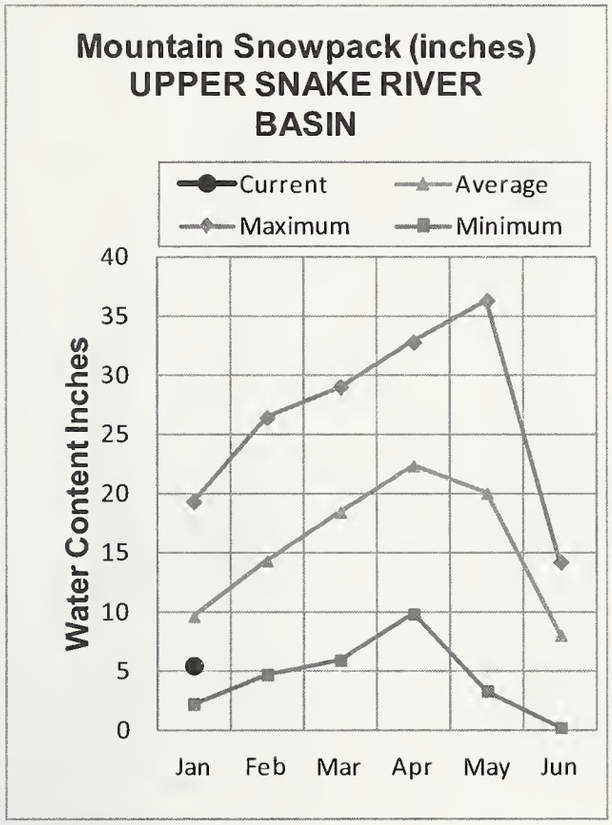
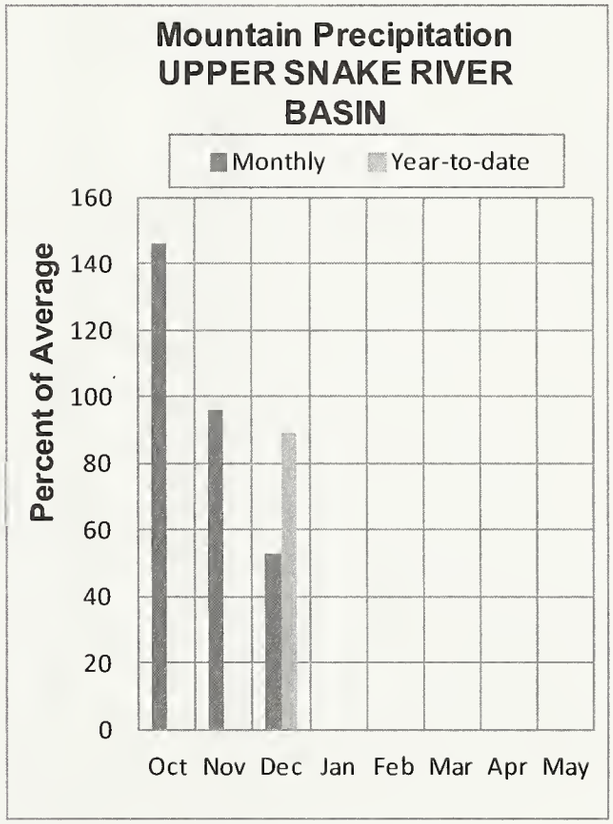
UPPER SNAKE BASIN

JANUARY 1, 2012





WATER SUPPLY OUTLOOK

Like siblings with the same genes but polar opposite personalities, this year's La Nina is shaping up quite different than last winter's La Nina. Last winter came close to equaling maximum snow records in the Upper Snake; by comparison this winter has started with one of the lowest. Fall precipitation was above average in October (146% for the month) and near average in November (96%), however the clouds dried up for most of December which saw far below average amounts (52%). Water year-to-date precipitation since October currently stands at 89% of average. Snowpacks were on track until Thanksgiving when a ridge of high pressure blocked additional precipitation. Snowpacks held steady with a month of cold weather and very little accumulation until Christmas. Blind Bull SNOTEL, in the Greys River basin, and Phillips Bench, on Teton Pass, each recorded the least amount of snow ever measured on December 27 based on 31 years of daily data. Fortunately, the high pressure broke down and the winter's first big storm delivered abundant moisture totaling up to 4 inches of water at higher elevation SNOTEL sites. Currently, snowpacks across the watershed range from 60-64% of average in the Greys, Salt and Hoback basins to 90% above Jackson Lake. Although snow amounts are low for the most part in the basin, water users are pleased to see water in the bank accounts; combined storage for the 8 major reservoirs in the Upper Snake is 113% of average, 73% of capacity. Streams are forecast at 73-99% of average for the April-July period and should be enough for adequate irrigation supplies. Hopefully the La Nina we knew last year returns for the rest of this winter.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Henrys Fork nr Ashton (2)	APR-JUL	307	389	450	79	515	620	570
	APR-SEP	435	533	605	79	682	803	765
Falls R nr Ashton (2)	APR-JUL	226	272	305	80	340	395	380
	APR-SEP	269	322	360	80	401	464	450
Teton R nr Driggs	APR-JUL	67	97	120	73	146	189	165
	APR-SEP	86	123	152	72	184	237	210
Teton R nr St. Anthony	APR-JUL	174	242	295	73	353	448	405
	APR-SEP	214	294	355	74	422	531	480
Henrys Fork nr Rexburg (2)	APR-JUL	925	1090	1210	78	1330	1500	1560
	APR-SEP	1230	1420	1550	77	1680	1870	2010
Snake R at Flagg Ranch	APR-JUL	310	395	450	91	505	590	495
	APR-SEP	345	435	495	91	555	645	545
Snake R nr Moran (1,2)	APR-JUL	430	625	710	87	795	990	815
	APR-SEP	475	690	785	87	880	1090	905
Pacific Ck At Moran	APR-JUL	99	135	160	94	185	220	171
	APR-SEP	105	142	167	94	192	230	178
Buffalo Fork ab Lava nr Moran	APR-JUL	210	255	285	95	315	360	301
	APR-SEP	240	290	325	95	360	410	344
Gros Ventre R at Kelly	APR-JUL	77	143	188	94	235	300	200
	APR-SEP	109	181	230	94	280	350	244
Snake R nr Alpine (1,2)	APR-JUL	1110	1730	2010	85	2290	2910	2370
	APR-SEP	1290	1990	2310	85	2630	3330	2730
Greys R Nr Alpine	APR-JUL	156	215	255	75	295	355	340
	APR-SEP	184	255	300	76	345	415	395
Salt R Nr Etna	APR-JUL	79	169	230	68	290	380	340
	APR-SEP	114	220	290	69	360	465	420
Snake R nr Irwin (1,2)	APR-JUL	1690	2350	2650	80	2950	3610	3330
	APR-SEP	2010	2750	3090	80	3430	4170	3870
Snake R nr Heise (2)	APR-JUL	2030	2510	2830	80	3150	3630	3560
	APR-SEP	2410	2950	3320	80	3690	4230	4160
Willow Ck nr Ririe (2)	MAR-JUL	33	56	71	81	86	109	88
Blackfoot R ab Res nr Henry	APR-JUN	16.1	32	45	62	61	88	73
Portneuf R at Topaz	MAR-JUL	32	48	60	67	74	97	89
	MAR-SEP	40	58	73	67	89	116	109
Snake R at Neeley (1,2)	APR-JUL	735	1920	2460	76	3000	4190	3240
	APR-SEP	800	2090	2670	76	3250	4540	3510

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	87.2	86.4	82.5
ISLAND PARK	135.2	111.9	91.7	96.1
GRASSY LAKE	15.2	11.8	12.7	11.6
JACKSON LAKE	847.0	631.1	658.1	481.7
PALISADES	1400.0	1236.5	811.4	1036.5
RIRIE	80.5	40.5	40.2	34.5
BLACKFOOT	348.7	273.7	198.4	215.3
AMERICAN FALLS	1672.6	941.1	1059.5	986.6

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Henrys Fork-Falls River	7	57	74
Teton River	6	54	67
Henrys Fork above Rexburg	13	55	71
Snake above Jackson Lake	5	69	89
Pacific Creek	2	83	112
Gros Ventre River	3	56	74
Hoback River	5	53	64
Greys River	4	48	60
Salt River	3	46	62
Snake above Palisades	18	58	75
Willow Creek	7	56	80
Blackfoot River	3	54	71
Portneuf River	3	34	50
Snake abv American Falls	32	55	74

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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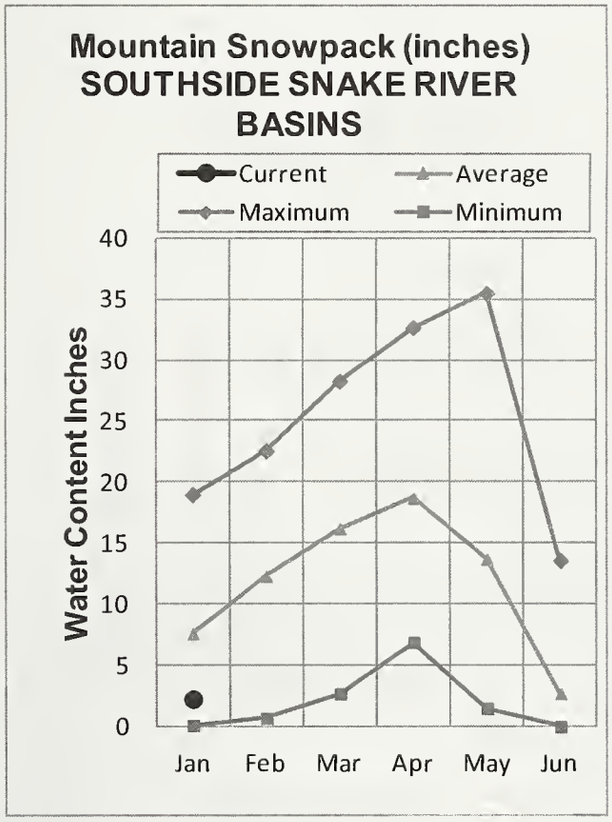
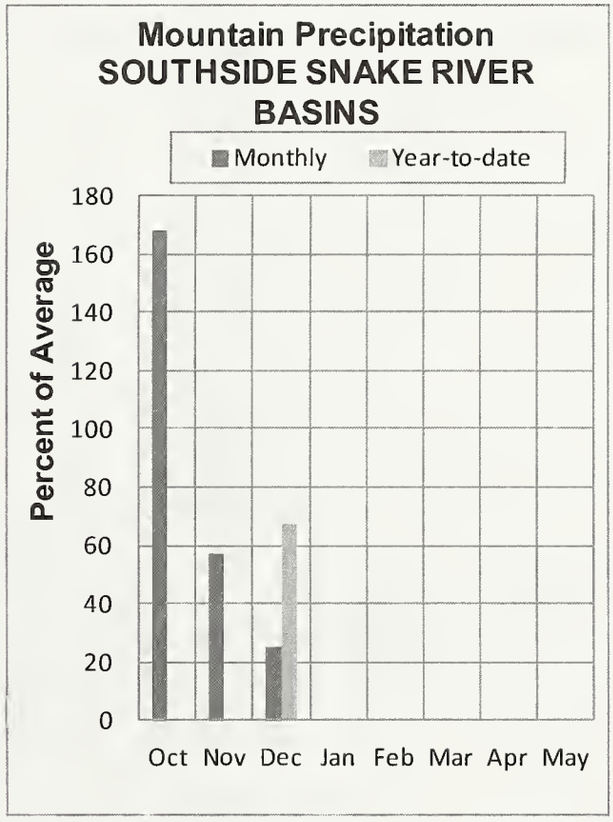
SOUTHSIDE SNAKE RIVER BASINS

JANUARY 1, 2012





WATER SUPPLY OUTLOOK

With the exception of above normal precipitation in October, the Southside Snake basins have been very dry this water year and currently host the lowest snowpack in Idaho. The new water year started on the right foot, receiving 168% of average precipitation in October. November started to dry out with only 57% of average precipitation falling and got worse in December with only 25% falling across the region. The Owyhee was the driest basin in December with only 17% of normal precipitation for the month. Most SNOTEL sites had less than an inch of precipitation for the month. Snowpacks range from a low of 26% of average in the Owyhee basin to 35% in the Bruneau, 41% in the Salmon Falls basin and 51% in the Goose Creek basin. Streamflow forecasts mirror the snow and call for below average amounts ranging from 29-65% across the region. Despite below average conditions, reservoir storage across the region is excellent and provides water users a buffer for this summer. Owyhee Reservoir is 124% of average, 69% full and currently has over 450,000 acre-feet, which is the threshold needed to meet irrigation demand. Salmon Falls and Oakley reservoirs are also storing above average amounts and need only minimal runoff this spring to meet irrigation demands.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Goose Ck ab Trapper Ck nr Oakley	MAR-JUL	2.9	10.1	15.0	58	19.9	27	26
	MAR-SEP	4.2	11.8	17.0	57	22	30	30
Trapper Ck nr Oakley	MAR-JUL	2.7	3.8	4.5	63	5.2	6.3	7.2
	MAR-SEP	3.5	4.6	5.4	62	6.2	7.3	8.7
Oakley Res Inflow	MAR-JUL	7.2	13.8	19.5	57	26	38	34
	MAR-SEP	8.5	15.8	22	60	29	42	37
Salmon Falls Ck nr San Jacinto	MAR-JUN	11.4	23	34	38	47	69	89
	MAR-JUL	11.4	24	35	38	48	72	93
	MAR-SEP	13.0	26	38	39	52	76	98
Bruneau R nr Hot Springs	MAR-JUL	43	79	110	47	146	210	235
	MAR-SEP	45	83	115	46	152	215	250
Owyhee R nr Gold Ck (2)	MAR-JUL	2.3	5.7	9.3	29	14.2	24	32
	MAR-SEP	1.7	4.6	7.7	25	12.0	21	31
Owyhee R nr Rome	FEB-JUL	33	174	330	50	485	715	655
	FEB-SEP	34	181	340	50	500	735	675
	APR-SEP	20	109	220	55	330	495	400
Owyhee R bl Owyhee Dam (2)	FEB-JUL	119	250	365	52	505	745	700
	FEB-SEP	133	270	385	53	525	765	730
	APR-SEP	79	169	250	58	345	515	430
Snake R bl Lower Granite Dam (1,2)	APR-JUL	6250	13700	17100	79	20500	28000	21550

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	75.6	31.9	15.5	25.7
SALMON FALLS	182.6	84.6	36.6	52.6
WILDHORSE RESERVOIR	71.5	48.2	29.5	37.8
OWYHEE	715.0	492.4	214.9	398.1
BROWNLEE	1420.0	1339.1	1311.1	1303.0

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Raft River	1	40	71
Goose-Trapper Creeks	2	42	51
Salmon Falls Creek	6	29	41
Bruneau River	5	23	35
Reynolds Creek	0	0	0
Owyhee Basin Total	7	18	26
Owyhee Basin SNOTEL	7	18	26

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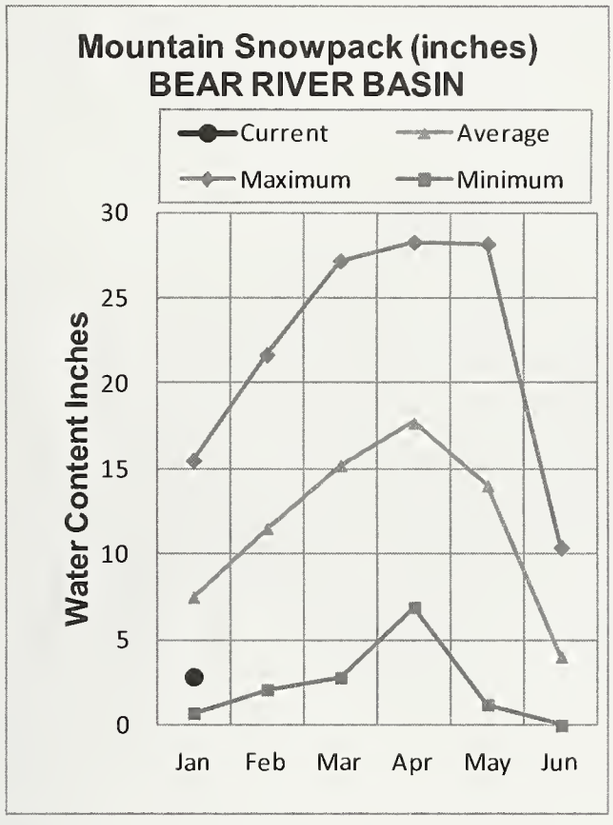
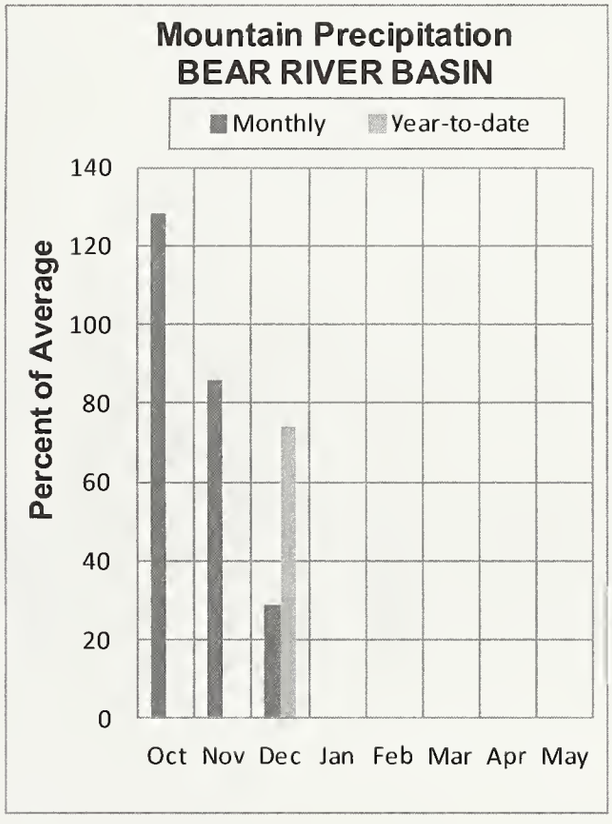
BEAR RIVER BASIN

JANUARY 1, 2012





WATER SUPPLY OUTLOOK

Water year 2011 will be remembered as a stellar water year in the Bear River basin but this year may be remembered for the opposite. The April-July 2011 streamflow was 260% of average for the Bear River at Stewart Dam; this year Stewart Dam is forecast to be 65% of average for the same period. A year ago the lake was storing only 516,000 acre-feet. Today, the lake is storing 1,077,900 acre-feet, the highest January 1 amount since 1999. Minimal spring runoff is needed for reservoir storage water users. Monthly precipitation for October was 128% of average; November brought 86% and December saw only a quarter of its normal amount. As a result, snowpacks range from 40-60% of average across this region. Since 1991, 7 out of 16 years that had a below normal snowpack on January 1, increased to an April 1 snowpack of 80% of average or better. Hopefully, we can add another year to that record.

BEAR RIVER BASIN
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<= Drier = Future Conditions = Wetter =>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear R nr UT-WY State Line	APR-JUL	43	69	87	77	105	131	113
	APR-SEP	47	75	95	76	115	143	125
Bear R ab Res nr Woodruff	APR-JUL	30	67	92	68	117	154	136
	APR-SEP	32	70	95	67	120	158	142
Big Ck nr Randolph	APR-JUL	0.6	2.1	3.2	65	4.3	5.8	4.9
Smiths Fk nr Border	APR-JUL	33	55	70	68	85	108	103
	APR-SEP	41	65	82	68	99	123	121
Bear R bl Stewart Dam	APR-JUL	9.0	66	130	56	194	287	234
	APR-SEP	21	88	160	61	232	337	262
Little Bear R at Paradise	APR-JUL	1.0	18.9	31	67	43	61	46
Logan R nr Logan	APR-JUL	31	64	86	68	108	141	126
Blacksmith Fork nr Hyrum	APR-JUL	5.9	21	32	67	43	58	48

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEAR LAKE	1421.0	1077.9	516.1	907.5
MONTPELIER CREEK	4.0	2.8	2.1	1.7

BEAR RIVER BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	3	45	63
Bear River ab WY-ID line	9	35	58
Montpelier Creek	1	34	56
Mink Creek	1	29	46
Cub River	1	34	61
Bear River ab ID-UT line	15	35	56
Malad River	1	26	43

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Streamflow Adjustment List for All Forecasts Published in Idaho Water Supply Outlook Report: Streamflow forecasts are projections of runoff volumes that would occur without influences from upstream reservoirs or diversions. These values are referred to as natural, unregulated or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and inter-basin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made for each forecast point. **(Revised Dec 2011).**

Panhandle River Basins

Kootenai R at Leonia, MT
+ Lake Koocanusa storage change

Moyie R at Eastport – no corrections

Smith Creek nr Porthill – no corrections

Boundary Ck nr Porthill – no corrections

Clark Fork R at Whitehorse Rapids
+ Hungry Horse storage change
+ Flathead Lake storage change
+ Noxon Rapids Res storage change

Pend Oreille Lake Inflow
+ Pend Oreille R at Newport, WA
+ Hungry Horse storage change
+ Flathead Lake storage change
+ Noxon Rapids storage change
+ Pend Oreille Lake storage change
+ Priest Lake storage change

Priest R nr Priest R
+ Priest Lake storage change

NF Coeur d'Alene R at Enaville - no corrections

St. Joe R at Calder- no corrections

Spokane R nr Post Falls
+ Coeur d'Alene Lake storage change

Spokane R at Long Lake, WA
+ Coeur d'Alene Lake storage change
+ Long Lake, WA storage change

Clearwater River Basin

Selway R nr Lowell - no corrections

Lochsa R nr Lowell - no corrections

Dworshak Res Inflow
+ Clearwater R nr Peck
- Clearwater R at Orofino
+ Dworshak Res storage change

Clearwater R at Orofino - no corrections

Clearwater R at Spalding
+ Dworshak Res storage change

Salmon River Basin

Salmon R at Salmon - no corrections

Lemhi R nr Lemhi – no corrections

MF Salmon R at MF Lodge – no corrections

SF Salmon R nr Krassel Ranger Station – no corrections

Johnson Creek at Yellow pine – no corrections

Salmon R at White Bird - no corrections

Weiser, Payette, Boise River Basins

Weiser R nr Weiser - no corrections

SF Payette R at Lowman - no corrections

Deadwood Res Inflow
+ Deadwood R bl Deadwood Res nr Lowman
+ Deadwood Res storage change

Lake Fork Payette R nr McCall – no corrections

NF Payette R at Cascade
+ Cascade Res storage change
+ Payette Lake storage change

NF Payette R nr Banks
+ Cascade Res storage change
+ Payette Lake storage change

Payette R nr Horseshoe Bend
+ Cascade Res storage change
+ Deadwood Res storage change
+ Payette Lake storage change

Boise R nr Twin Springs - no corrections

SF Boise R at Anderson Ranch Dam
+ Anderson Ranch Res storage change

Mores Ck nr Arrowrock Dam – no corrections

Boise R nr Boise
+ Anderson Ranch Res storage change
+ Arrowrock Res storage change
+ Lucky Peak Res storage change

Wood and Lost River Basins

Big Wood R at Hailey - no corrections

Big Wood R ab Magic Res
+ Big Wood R at Stanton Crossing nr Bellevue
+ Willow Ck

Camas Ck nr Blaine – no corrections

Big Wood R bl Magic Dam nr Richfield
+ Magic Res storage change

Little Wood R ab High Five Ck – no corrections

Little Wood R nr Carey
+ Little Wood Res storage change

Big Lost R at Howell Ranch - no corrections

Big Lost R bl Mackay Res nr Mackay
+ Mackay Res storage change

Little Lost R bl Wet Ck nr Howe - no corrections

Upper Snake River Basin

Henrys Fork nr Ashton
+ Henrys Lake storage change
+ Island Park Res storage change

Falls R nr Ashton
+ Grassy Lake storage change
+ Diversions from Falls R ab nr Ashton

Teton R nr Driggs - no corrections

Teton R nr St. Anthony
- Cross Cut Canal into Teton R
+ Sum of Diversions for Teton R ab St. Anthony
+ Teton Dam for water year 1976 only

Henrys Fork nr Rexburg
+ Henrys Lake storage change
+ Island Park Res storage change
+ Grassy Lake storage change
+ 7 Diversions from Henrys Fk btw Ashton to St. Anthony
+ 21 Diversions from Henrys Fk btw St. Anthony to Rexburg
+ 3 Diversions from Falls R ab Ashton
+ 6 Diversions from Falls R nr Ashton to Chester
Snake R nr Flagg Ranch, WY – no corrections
Snake R nr Moran, WY
+ Jackson Lake storage change
Pacific Ck at Moran, WY - no corrections
Buffalo Fork ab Lava nr Moran, WY - no corrections
Gros Ventre R at Kelly, WY - no corrections
Snake R ab Res nr Alpine, WY
+ Jackson Lake storage change
Greys R nr Alpine, WY - no corrections
Salt R R nr Etna, WY - no corrections
Snake R nr Irwin
+ Jackson Lake storage change
+ Palisades Res storage change
Snake R nr Heise
+ Jackson Lake storage change
+ Palisades Res storage change
Willow Ck nr Ririe
+ Ririe Res storage change
The forecasted natural volume for Willow Creek nr Ririe does not include an adjustment for Grays Lake water diverted from Willow Creek drainage through the Clarks Cut diversion and into Blackfoot Reservoir.
Blackfoot R ab Res nr Henry
+ Blackfoot Res storage change
The forecasted Blackfoot Reservoir Inflow includes Grays Lake water diverted from the Willow Creek drainage through the Clarks Cut diversion and into Blackfoot Reservoir.
Portneuf R at Topaz - no corrections
Snake R at Neeley
+ Jackson Lake storage change
+ Palisades Res storage change
+ American Falls storage change
+ Teton Dam for water year 1976 only

Southside Snake River Basins
Goose Ck nr Oakley - no adjustments
Trapper Ck nr Oakley - no adjustments
Oakley Res Inflow - *flow does not include Birch Creek*
+ Goose Ck
+ Trapper Ck
Salmon Falls Ck nr San Jacinto, NV - no corrections
Bruneau R nr Hot Springs - no corrections
Reynolds Ck at Tollgate - no corrections
Owyhee R nr Gold Ck, NV
+ Wildhorse Res storage change
Owyhee R nr Rome, OR – no Corrections
Owyhee R bl Owyhee Dam, OR
+ Owyhee Res storage change
+ Diversions to North and South Canals

Bear River Basin
Bear R nr UT-WY Stateline, UT- no corrections
Bear R abv Res nr Woodruff, UT- no corrections
Big Ck nr Randolph, UT - no corrections
Smiths Fork nr Border, WY - no corrections
Bear R bl Stewart Dam nr Montpelier
+ Bear R bl Stewart Dam
+ Rainbow Inlet Canal
Little Bear R at Paradise, UT - no corrections
Logan R nr Logan, UT - no corrections
Blacksmith Fk nr Hyrum, UT - no corrections

Reservoir Capacity Definitions (Units in 1,000 Acre-Feet, KAF)
Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. This table lists these volumes for each reservoir, and defines the storage volumes NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS report usable storage, which includes active and inactive storage. **(Revised Dec 2011)**

Basin/ Reservoir	Dead Storage	Inactive Storage	Active Storage	Surcharge Storage	NRCS Capacity	NRCS Capacity Includes
Panhandle Region						
Hungry Horse	39.73	---	3451.00	---	3451.0	Active
Flathead Lake	Unknown	---	1791.00	---	1791.0	Active
Noxon Rapids	Unknown	---	335.00	---	335.0	Active
Pend Oreille	406.20	112.40	1042.70	---	1561.3	Dead + Inactive + Active
Coeur d'Alene	Unknown	13.50	225.00	---	238.5	Inactive + Active
Priest Lake	20.00	28.00	71.30	---	119.3	Dead + Inactive + Active
Clearwater Basin						
Dworshak	Unknown	1452.00	2016.00	---	3468.0	Inactive + Active
Weiser/Boise/Payette Basins						
Mann Creek	1.61	0.24	11.10	---	11.1	Active
Cascade	Unknown	46.70	646.50	---	693.2	Inactive + Active
Deadwood	Unknown	---	161.90	---	161.9	Active
Anderson Ranch	24.90	37.00	413.10	---	450.1	Inactive + Active
Arrowrock	Unknown	---	272.20	---	272.2	Active
Lucky Peak	Unknown	28.80	264.40	13.80	293.2	Inactive + Active
Lake Lowell	7.90	5.80	159.40	---	165.2	Inactive + Active
Wood/Lost Basins						
Magic	Unknown	---	191.50	---	191.5	Active
Little Wood	Unknown	---	30.00	---	30.0	Active
Mackay	0.13	---	44.37	---	44.4	Active
Upper Snake Basin						
Henrys Lake	Unknown	---	90.40	---	90.4	Active
Island Park	0.40	---	127.30	7.90	135.2	Active + Surcharge
Grassy Lake	Unknown	---	15.18	---	15.2	Active
Jackson Lake	Unknown	---	847.00	---	847.0	Active
Palisades	44.10	155.50	1200.00	---	1400.0	Dead + Inactive+Active
Ririe	4.00	6.00	80.54	10.00	80.5	Active
Blackfoot	Unknown	---	348.73	---	348.7	Active
American Falls	Unknown	---	1672.60	---	1672.6	Active
Southside Snake Basins						
Oakley	0.00	---	75.60	---	75.6	Active
Salmon Falls	48.00	5.00	182.65	---	182.6	Active + Inactive
Wildhorse	Unknown	---	71.50	---	71.5	Active
Owyhee	406.83	---	715.00	---	715.0	Active
Brownlee	0.45	444.70	975.30	---	1420.0	Inactive + Active
Bear River Basin						
Bear Lake	5000.00	119.00	1302.00	---	1421.0 includes 119	Active + Inactive: that can be released
Montpelier Creek	0.21	---	3.84	---	4.0	Dead + Active

Interpreting Water Supply Forecasts

Introduction
Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

90 Percent Chance of Exceedance Forecast. There is a 90 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 10 percent chance that the actual streamflow volume will be less than this forecast value.

70 Percent Chance of Exceedance Forecast. There is a 70 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 30 percent chance that the actual streamflow volume will be less than this forecast value.

50 Percent Chance of Exceedance Forecast. There is a 50 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 50 percent chance that the actual streamflow volume will be less than this forecast value. Generally, this forecast is the middle of the range of possible streamflow volumes that can be produced given current conditions.

30 Percent Chance of Exceedance Forecast. There is a 30 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 70 percent chance that the actual streamflow volume will be less than this forecast value.

10 Percent Chance of Exceedance Forecast. There is a 10 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 90 percent chance that the actual streamflow volume will be less than this forecast value.

*Note: There is still a 20 percent chance that actual streamflow volumes will fall either below the 90 percent exceedance forecast or above the 10 percent exceedance forecast.

These forecasts represent the uncertainty inherent in making streamflow predictions. This uncertainty may include sources such as: unknown future weather conditions, uncertainties associated with the various prediction methodologies, and the spatial coverage of the data network in a given basin.

30-Year Average. The 30-year average streamflow for each forecast period is provided for comparison. The average is based on data from 1971-2000. The % AVG. column compares the 50% chance of exceedance forecast to the 30-year average streamflow; values above 100% denote when the 50% chance of exceedance forecast would be greater than the 30-year average streamflow.

AF - Acre-feet, forecasted volume of water are typically in thousands of acre-feet.

These forecasts are given to users to help make risk-based decisions. Users can select the forecast corresponding to the level of risk they are willing to accept in order to minimize the negative impacts of having more or less water than planned for.

To Decrease the Chance of Having Less Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive less than this amount). To reduce the risk of .having less water than planned for, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded such as the 90 or 70 percent exceedance forecasts.

To Decrease the Chance of Having More Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive more than this amount). To reduce the risk of having more water than planned for, users can base their operational decisions on one of the forecasts with a lesser chance of being exceeded such as the 30 or 10 percent exceedance forecasts.

Using the forecasts - an Example
Using the 50 Percent Exceedance Forecast. Using the example forecasts shown below, there is a 50% chance that actual streamflow volume at the Boise River near Twin Springs will be less than 685 KAF between April 1 and July 31. There is also a 50% chance that actual streamflow volume will be greater than 685 KAF.

Using the 90 and 70 Percent Exceedance Forecasts. If an unexpected shortage of water could cause problems (such as irrigated agriculture), users might want to plan on receiving 610 KAF (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 610 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 443 KAF (from the **90** percent exceedance forecast). There is 10% chance of receiving less than 443 KAF.

Using the 30 or 10 Percent Exceedance Forecasts. If an unexpected excess of water could cause problems (such as operating a flood control reservoir), users might plan on receiving 760 KAF (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 760 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 927 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 927 KAF.

Users could also choose a volume in between any of these values to reflect their desired risk level.

Weiser, Payette, Boise River Basins
Streamflow Forecasts – January 2006

Forecast Point	Forecast Period	Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000 AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SF PAYETTE RIVER at Lowman	APR-JUL	329	414	471	109	528	613	432
	APR-SEP	369	459	521	107	583	673	488
BOISE RIVER near Twin Springs (1)	APR-JUL	443	610	685	109	760	927	631
	APR-SEP	495	670	750	109	830	1005	690

*90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table

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Numerous other groups and agencies provide funding and/or cooperative support for the collection, operation and maintenance of the Cooperative Idaho Snow Survey Program. Their cooperation is greatly appreciated.